

REMARKS

Claims 16-20 are all the claims pending in the application. Claim 20 is independent.

I. Claim Rejections Under 35 U.S.C. § 102

The Examiner rejected claims 16-20 under 35 U.S.C. § 102(b) as being anticipated by non-patent literature Fuchs, M., et al., entitled “*Improving source reconstructions by combining bioelectric and biomagnetic data*” (hereinafter “Fuchs”).

Claim 20

The Examiner specifically stated that Fuchs teaches “feeding source reconstruction data through a feedback loop to the measurement module to modify the analysis of a new electromagnetic physiological signal...” *Office Action*, p. 3. The Applicant respectfully disagrees, as Fuchs fails to disclose an *online* source reconstruction system for *continuously acquiring* electromagnetic signals. Specifically, as recited in claim 20, the method includes “feeding source reconstruction data through a *feedback loop* to the measurement module to *modify the analysis of a new electromagnetic physiological signal...*” (emphasis added). The Examiner appears to cite to Section 1 (“Introduction”) and Section 2 (“Methods”) of Fuchs as teaching the recited claim feature, and specifically mentions “SEP/SEF measurement verification.” However, the Applicant submits that Fuchs fails to disclose, in Section 1, 2 or otherwise, a system for “feeding source reconstruction data through a *feedback loop* to the measurement module *to modify analysis of a new electromagnetic physiological signal.*” In other words, there is no discussion in Fuchs of *continuously acquiring signals nor modifying analysis of new signals* with already reconstructed data. Fuchs discloses combining bioelectric data and biomagnetic data, but at no point discloses a system where source reconstruction data is

sent back to the measurement module to modify analysis of a new signal. The only discussion found in Fuchs about “verification” is in Section 2.11 (“Evoked somatosensory field examinations”), which only discusses verifying simulated results by taking actual measurements in a standard SEP/SEF experiment. However, there is no discussion of using a “feedback loop” or continuously acquiring new signals and modifying the analysis of those signals using already-derived source reconstruction data. Therefore, the Applicant submits that Fuchs fails to disclose each and every element of claim 20, as required for a rejection under 35 U.S.C. § 102(b).

The Applicant respectfully requests that if the Examiner wishes to maintain the rejection, he more particularly point out where in Fuchs the feedback loop and analysis modification features are disclosed so the Applicant can more particularly respond to the Examiner’s rejections.

The Applicant further notes that Fuchs fails to disclose performing a source reconstruction with “the computer system being configured to support *multiple parallel threads of execution* with one thread being a measurement module and a second thread being a source reconstruction module,” as recited in claim 20 (emphasis added). The Examiner cites to Section 2.10 (“Simulations”) and Section 2.11 (“Evoked somatosensory field examinations”) as disclosing the claimed feature. However, the Applicant cannot find any discussion in Sections 2.10, 2.11 or Fuchs generally, which disclose a system running “multiple parallel threads of execution,” as is explicitly recited in claim 20. Section 2.10 simply describes a simulation test which adds white noise to test sensor configurations, and Section 2.11 simply describes how to distribute electrodes over a subject’s head during an actual experiment. Neither of the sections actually describe the source reconstruction, nor do they distinguish between a source reconstruction module or a measurement module. Therefore, the Applicant respectfully submits

that Fuchs fails to disclose a computer system “configured to support multiple parallel threads of execution with one thread being a measurement module and a second thread being a source reconstruction module,” as recited in claim 20.

As Fuchs fails to disclose each and every element of claim 20, the Applicant respectfully requests that the rejection under 35 U.S.C. § 102(b) be withdrawn.

Claims 16-19

The Applicant submits that claims 16-19 are allowable at least based on their dependency to claim 20, as discussed above.

II. Claim Rejections Under 35 U.S.C. § 103

The Examiner rejected claims 18-19 under 35 U.S.C. § 103(a) as being unpatentable over Fuchs M. et al. *Improving source reconstructions by combining bioelectric and biomagnetic data.*”

Claims 18-19

The Applicant refers the Examiner to the discussion presented above with regard to claim 20, and submits that claims 18-19 are allowable at least based on their dependency to claim 20, as discussed above.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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